DOCUMENT RESUME

ED 156 254 JC 780 349

AUTHOR Henard, Kay Fields; Byrd, B. Eugene
TITLE High-Risk Students in a Community College Developmental Studies Program: Predictors for Academic Success.
PUB DATE 77
NOTE 39p.; Paper presented at the American Educational Research Association Annual Meeting (New York, New York, 1977)

EDRS PRICE MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS Academic Achievement; Community Colleges; *Developmental Programs; *Educationally Disadvantaged; Educational Objectives; Institutional Research; *Junior Colleges; Low Achievement Factors; *Low Achievers; Remedial Programs; *Self Concept; Student Attitudes; *Student Characteristics
IDENTIFIERS Amarillo College TX

ABSTRACT

Since the developmental studies program at Amarillo College began in 1974, continuing efforts have been made to assess the characteristics, attitudes, motivations and goals of the high-risk students in the program, which was designed to build self-concept and improve reading, English, math and study skills. Over the three years of the study, students have tended to be older than regular students, more frequently male, Anglo-American, single, non-military, and employed. The majority have had high school diplomas or equivalencies and 55% aspired to associate degrees or higher. Although over 80% since 1974 intended to continue their education, their confidence in completing their education has fallen from 42% "very sure" in 1974 to 16% in 1976. The majority have aimed at professional to semi-professional jobs. A sample of 79 high-risk students were traced from enrollment in fall 1975 to spring 1977. Only 27 remained enrolled, carrying an average 12.6 hours per semester with a mean grade point of 2.69. The total hours earned averaged 49.4. The performance of students in English classes was also studied. Student evaluations of the program, study implications and future research efforts are discussed. A bibliography is appended. (TR)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED156254

HIGH-RISK STUDENTS IN A COMMUNITY COLLEGE DEVELOPMENTAL STUDIES PROGRAM: PREDICTORS FOR ACADEMIC SUCCESS

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Kay Fields Henard

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

by
KAY FIELDS HENARD
Amarillo College
Amarillo, Texas

and

R. EUGENE BYRD
Amarillo College
Amarillo, Texas

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

A paper presented at the
American Educational Research Association
Annual Meeting 1977
New York, New York
Section Meeting 23.05 - Community College Research:
Students, Needs and Assessment

JC 780 349

HIGH-RISK STUDENTS IN A COMMUNITY COLLEGE DEVELOPMENTAL STUDIES PROGRAM: PREDICTORS FOR ACADEMIC SUCCESS

Kay Fields Henard, Amarillo College, Amarillo, Texas

R. Eugene Byrd, Amarillo College, Amarillo, Texas

A B S T R A C T

Studies of high-risk students in the developmental studies program of Amarillo College, a comprehensive community college in Northwest Texas, have continued since the program's inception in 1974 in an effort to understand their characteristics, attitudes, motivations, and goals. The emerging picture is that of a twenty-four year old Anglo-American, single and non-military. The high-risk student works well over 20 hours per week and supports himself on a lower middle to lower socioeconomic status. He has earned a high school diploma, is reading on the tenth grade level and has borderline entrance examination scores. He wants to earn at least a Bachelor's degree but is undecided to doubtful of his ability to do so. His attitudes toward college, life and self have become more positive.

From the data gathered, several implications important to advising the high-risk student can be drawn. He works more than half-time, honestly admits his weak academic areas, lacks confidence in his abilities, and conversely has lofty educational and career aspirations. More questions are suggested than are answered by this data. Yet it offers a vital perspective on the high-risk student population that can guide the steps of future research.

TABLE OF CONTENTS

	Page
Review of Literature	1
Nature and Objectives of Developmental Program	4
Demographic Characteristics of High-Risk Students	7
Attitudes of High-Risk Students	9
Academic Performance of High-Risk Students	15
Conclusions and Implications	19
Future Research	25
REFERENCES	26

LIST OF TABLES

Table		Page
1	Demographic Overview of High-Risk Students by Percentages	10
2	Attitudinal Overview of High-Risk Students by Percentages	12
3	English Grades for High-Risk Students from Fall 1974 through Fall 1975	18
4	Developmental Course Evaluation by Students in Percentages - English	20
5	Developmental Course Evaluation by Students in Percentages - Math	21
6	Developmental Course Evaluation by Students in Percentages - Psychology	22
7	Developmental Course Evaluation by Students in Percentages - Reading	23

This study evolved from an ongoing follow-up of one developmental studies program and its high-risk students through the first two-and-one-half years of the program's existence in a comprehensive community college in Northwest Texas, Amarillo College.

It is a generally accepted fact that two-year colleges have a commitment to serve students who in many other institutions of higher education would be considered high risks since they are less likely than other students to complete their chosen programs of study. While commitment is well-accepted, authorities such as Moore (1976) recognize that it is yet ineffectively accomplished.

High-risk students have been defined by authorities for a decade (Roueche,1968, 1972; Roueche and Kirk, 1973; Cohen & Associates, 1971; Knoell, 1970; Astin, 1975). Yet it is difficult to generalize demographic or attitudinal characteristics as causative of low achievement. Continuous, ongoing research is needed to identify the predominent characteristics and motivations of a community college's high-risk population. Only then can remedial instruction be adequately designed and altered to meet the specific needs of this educationally disadvantaged student body. Thus, the impetus for this research was borne of a desire to establish stable knowledge regarding high-risk students and of a need to explore the outcomes of remedial instruction on their academic performance.

Review of the Literature

Students' success in college depends on a variety of factors.

Characteristics of students in two-year colleges are heavily weighted with those identifiable with drop-out proneness. However, Cross (1969) concludes that the community college student is so different from the typical concept of a college student that he may be unfairly typed.

Numerous studies show that two-year college students on measures of academic ability and aptitude including intelligence fall below their four-year college mate. (Cooley and Becker, 1966; Astin et al, 1969; Medsker and Tillery, 1971; Cohen, 1971).

Self-esteem and academic aspiration have been identified as affecting drop-out proneness (Astin, 1975 p.38). Cross (1968) reported that many students attend a two-year college because of their uncertainty about their interest and motivation. The SCOPE study (1968) showed that only 29% of two-year college students as opposed to 57% of four-year college students felt they were "definitely able" to do college work.

Two-year college students tend to be more pragmatic with regard to their education as indicated in the SCOPE study (1968) and tend to major in applied fields as reported by Cooley and Becker (1966). This corresponds with their lower educational (Rehberg and Westby, 1967) and occupational (Cross, 1971) aspirations. O'Banian (1969) reported that they tend to orient toward a career which will have both immediate payoff and a close relationship between training and subsequent employment.

Within the real of socioeconomic status, two-year college students, as a group, come from families of lower social and financial levels (Astin et al., 1967; Cooley and Becker, 1966). The lower socioeconomic status of community college students continued to hold true in the

1970's as reported by Shea & Rehberg (1973).

Even though research on the two-year college student was begun hardly more than a decade ago, the emerging picture of the typical two-year college student is sharply differentiated from the four-year student on intellectual dimensions. They are less academically able according to present measures, less intellectually oriented, and less motivated to seek higher education in the traditional sense. Other differentiations find the two-year student lower on the socioeconomic scale and more likely to be a part-time student due to full-or part-time employment. All of these factors and others ultimately influence the academic performance of the two-year college student. The effects of these factors tend to maximize the ratio of potential to actual enrollment and graduation levels in two-year colleges.

Astin's research, reported in his book "Preventing Students From Dropping Out" (1975), concludes that two-year colleges as a type of institution have the highest drop-out rate (mean of 59%). And rates in the West and Southwest are even higher (about 65%). He concludes this is so because the public two-year college has the student and environmental attributes associated with dropping out, such as: student with relatively low ability and motivation, high percentage of married and older students, no residential facilities, limited financial aid and few extra-curricular activities.

Given the open-door admission policies of the two-year colleges, these student characteristics and the concomitant high attrition rates have encouraged special programs to develop and provide remedial assistance. An array of terms have entered the nomenclature for the

special program: basic studies, developmental studies, general studies, compensatory studies.

Roueche (1973) identified several types of special programs. Some programs are preparatory to entrance into college. Some offer courses for institutional credit only. Some provide extensive testing and counseling service. Others isolate students from the mainstream through an integrated block curriculum. Some have specialized faculty and utilize a "vertical team approach". Perhaps many other varieties of organization have been and are being used on an experimental basis. Carmen Puig-Casauranc (1974) in a report of the National Dissemination Project for Post-Secondary Education questions all of these approaches and calls for a totally new approach.

Knowledge of junior college student characteristics, particularly the underprepared or high-risk student's characteristics, is yet limited. Consequently, conclusions regarding their low achievement cannot be easily tied to demographic or attitudinal data.

Nature and Objectives of the Developmental Program

The developmental studies program is established in a community college of 20,000 students with a reputation for both academic excellence and program comprehensiveness. These two characteristics have compounded the typical problems faced by an institution with its high-risk students. Vocationally and technically oriented programs have attracted students traditionally identified as under-prepared. High academic standards in traditional transfer programs forced the identification of average students as high-risk. For example, analysis of students in the typical freshman composition course showed that of those with an 84 or lower high

school GPA only 42.1% completed the course with an A, B, or C.

This developmental studies program was designed keeping in mind the typical problems of high-risk students as well as those perceived to be peculiar to this institution. The program is a coordinated effort rather than an autonomous unit and thus enlists the support of appropriate content specialists. The focal point of the program is a psychology course, "Personal Development", designed to address the problem of low self-concept which has been identified in several studies as one pervasive characteristic of high-risk students (Cohen, et. al., 1971). The remainder of the program revolves around counseling, diagnostic testing and skills building courses in reading, English, math, and study skills. One additional factor, unique for the institution and deemed necessary for these students, is a non-punitive grading system and the removal of the lock-stepping of time block and instructional approaches.

Analysis of the performance of first time entering students taking nine or more hours for the 1970, 71, 72, and 73 fall classes led to identification of the high-risk student at this institution. This identification includes:

A. Low entrance exam scores

1. ACT Math - Below 20
2. SAT Math - Below 450
3. ACT English - 14 or below
4. SAT Verbal - 374 or below
5. SCAT Verbal - 285 or below
6. Nelson Denny- 52 or below

B. Weak academic background as evidenced by high school or college record, achievement test scores, or personal interview.

C. Two or more years away from a school evironment

D. Poor performance in college coursework

E. Problems with learning

F. Poor command of conversational English

During the three years covered in this study a total of just over 3500 who meet one or more of the above qualifications have enrolled in the program courses. Also, many students not identifiable as high-risk have taken various courses because of this reputation for skill building.

The objectives of the program were identified:

A. The student will be able to make consistently passing grades in his college coursework.

B. The student will exhibit a more positive attitude toward himself, others, school, subject matter, and instructors as indicated by a reliable attitude measurement instrument.

C. The student will be able to plan his life and career more effectively. He will exhibit more self-directed action as indicated by a reliable demographic inventory and an attitude measure.

D. The student will persist in college coursework without withdrawal.

E. The college will show an increase in the enrollment of students who are classified as disadvantaged according the above entry level definitions.

Demographic Characteristics of High-Risk Students

High-risk students at Amarillo College characteristically are somewhat older than the majority of students with a mean of 23.8 years of age. This compares to a mean age of 20.5 for all entering students at Amarillo College. The fact that high-risk students are slightly older seems logical given that at least two in ten of them have been out of school several years and utilize the developmental courses to "brush up" on their basic academic skills. Other older students (two in ten) come in need of remedial help which was heretofore unavailable to them. On the other hand, 6 out of 10 high-risk students are 17 - 20 years of age, have recently completed high school, and have a weak academic area or desire advancement in a basic skill.

Observation and random sampling has led to the conclusion that the high-risk student is more often male than female. Since Fall, 1974, the distribution has been 52.3% male, 47.7% female. This is in direct contrast to college-wide freshmen enrollment in the College of Arts and Sciences which has a heavier enrollment of female (53%) than male (47%) students.

The ethnic distribution of high-risk students has remained predominately Anglo-American. The predominance of Anglo-American students in the developmental studies program approximates the college-wide population which is 87% Anglo-American. However, it is significant that the percentage of Anglo-American students has steadily declined eleven percentage points over the last two years while the percentage of Blacks enrolled in the program has increased by almost fourteen percentage

points in the same period.

Consistently since the program's inception, the high-risk students have been single (60 to 70%). The majority have not served in the military. That percentage has increased steadily: 77.5% in Fall 1974; 82.4% in Fall 1975; and 90% in Fall 1976. The majority of high-risk students are employed. Interestingly an increased number each year have been employed but the average work hours per week have decreased from 33.5 in Fall 1974 to 22.0 in Fall 1976.

While the majority of high-risk students are high school graduates, those who enroll by virtue of having earned a GED has increased from 11% in Fall 1974 to 14% in Fall 1976. These are approximately equivalent to the college-wide freshmen admittance statistics over the past three years. Consistently 1.3% have no high school equivalency.

Many students who enter developmental courses have no recorded entrance examination scores. Of those who have had scores, approximately 60% have been borderline or below average while 40% have been average or above. Furthermore the reading grade level of developmental students ranges from elementary to college with the mean falling near 10.0. It is significant that learning disabled or severely educationally deprived students have increased in reading courses within the developmental program from 1 in 10 to 3 in 10 over the past two years.

Socioeconomically speaking, the fathers of high-risk students have approximately 11 to 12 years of schooling and are employed in semi-skilled to semiprofessional occupations. This is slightly lower than the majority of students at Amarillo College who come from homes with a total yearly income of $20,000 or better.

Until Fall 1976, at least 37% of the high-risk students ultimately hoped to earn a Bachelor's degree. This percentage decreased to 32% in Fall 1976. Conversely, the percentage aspiring to an education beyond Bachelor's degree training increased from 20% in Fall 1974 to 33% in Fall 1976. It is interesting to observe that the educational goals of students range higher than their academic skills upon enrollment would suggest. It can be speculated that successful completion of one or more developmental studies courses increases a student's confidence and thus heightens educational goals. This speculation deserves statistical study.

Table 1 depicts the demographic follow-up on a sample of randomly selected high-risk students from Fall 1974, Fall 1975, and Fall 1976.

Attitudes of High-Risk Students

Self-esteem has been identified as instrumental in retention and college success (Astin, 1975). However, it is difficult to assess the constructs of self-esteem. A self-report instrument was designed and validated over two semesters of usage. Through its forty-four Likert statements and scaling, personal, social, educational, and career attitudes are assessed.

Table 2, pages 12-14, depicts the attitudes of high-risk student samples from Fall 1974, Fall 1975, and Fall 1976. Attitudes toward college have become slightly more positive as indicated by the results on statements 1, 4, 8, 15, and 32. As a consequence, fewer find it difficult to study and the majority want to remain in college. Consistently, students indicated no pressure to attend college and those

TABLE 1

Demographic Overview of High-Risk Students by Percentages

Variables	Fall 1974	Fall 1975	Fall 1976
SEX			
Male (total number of sam le)	52	56	37
Female (total number of sample)	48	44	40
AGE			
Mean in years	25.3	22.4	23.6
ETHNICITY			
Mexican American	6.5	6.3	7.0
Black	1.8	8.9	15.4
Anglo American	88.8	81.0	77.4
All other	3.0	3.8	0.0
MARITAL STATUS			
Single	60.0	70.8	64.0
Married	36.8	27.0	30.0
Divorced	2.3	2.2	2.0
Widowed	1.3	0.0	4.0
MILITARY STATUS			
Never served	77.5	82.4	90.0
Served 2 years or less	6.0		1.0
Served more than 2 years	16.8	17.6	9.0
EMPLOYMENT STATUS			
Unemployed	31.0	26.4	26.0
Employed	69.0	73.6	74.0
Work hours (Mean per week)	33.5	33.0	22.0
SOCIOECONOMIC STATUS			
Father's education (Mean in years)	11.5	12.0	11.5
EDUCATIONAL BACKGROUND			
High School diploma	87.5	83.5	85.0
GED Certificate	11.0	13.2	14.0
Other	1.8	3.3	1.0
EDUCATIONAL ASPIRATIONS			
Less than 2 years college	6.8	8.0	5.0
Less than 2 years vocational/ technical	0.0	1.2	0.0
2 years college	17.0	19.5	21.0
2 years vocational/technical	6.8	5.8	9.0
Bachelor's degree	37.8	37.9	32.0
Beyond Bachelor's degree	20.5	27.6	33.0

TABLE 1 (continued)

Variables	Fall 1974	Fall 1975	Fall 1976
RATING OF CONFIDENCE TO COMPLETE DESIRED EDUCATION			
Very doubtful	1.3	0.0	1.0
Doubtful	5.0	4.6	29.3
Undecided	21.8	33.3	28.0
Sure	29.5	29.9	25.3
Very sure	42.0	32.2	16.0
INTENT TO CONTINUE EDUCATION			
2 year college	83.3	86.6	89.0
Vocational/technical school	0.5	0.0	1.0
4 year college	7.8	7.7	7.0
No	8.8	4.4	3.0
CAREER ASPIRATIONS			
Job most wanted on Havighurst Scale			
1=highly professional	5.3	6.3	11.0
2=professional	24.5	27.0	20.0
3=professional to semi-professional	47.8	33.3	48.0
4=semi-professional	9.5	14.5	14.0
5=skilled	10.3	7.2	3.0
6=semi-skilled	0.8	0.0	4.0
7=unskilled	1.8	4.3	0.0
Job most likely on Havighurst Scale			
1=highly professional	0.8	1.3	10.1
2=professional	20.8	8.8	15.2
3=professional to semi-professional	50.3	18.8	51.7
4=semi-professional	19.0	41.3	11.8
5=skilled	7.3	23.8	7.3
6=semi-skilled	0.8	3.8	3.9
7=unskilled	0.0	0.0	0.0

TABLE 2

Attitudinal Overview of High-Risk Students by Percentages
Sample: Fall 1974- 88 Fall 1975- 89 Fall 1976- 77

Attitude Variable	Agree			Undecided			Disagree		
	Fall 74	Fall 75	Fall 76	Fall 74	Fall 75	Fall 76	Fall 74	Fall 75	Fall 76
1. College encourages an individual to think for himself.	88.7	83.3	98.0	10.2	13.7	1.0	1.1	3.0	1.0
2. My career plans are definite.	43.7	37.6	40.0	43.7	34.4	30.0	12.6	27.4	14.0
3. This is a lonely life.	16.0	4.6	14.0	10.2	13.0	13.0	73.8	82.14	73.0
4. Education is of no help in getting a job today.	5.6	1.1	2.0	12.6	8.0	7.0	81.8	90.9	91.0
5. Times are getting better.	19.3	52.3	36.0	36.4	21.6	38.0	44.3	26.1	26.0
6. I was forced to come to college.	7.9	7.9	9.0	4.6	1.1	1.0	87.5	90.9	90.0
7. Making good grades is important.	90.9	90.5	90.0	5.7	2.4	5.0	3.4	7.1	5.0
8. College is boring.	11.3	10.2	4.0	15.9	15.9	23.0	72.8	73.9	73.0
9. I often wonder what the meaning of life is.	42.0	44.3	37.0	14.8	9.0	14.0	43.2	46.6	49.0
10. One can usually keep cool in important situations.	71.6	64.4	61.0	11.4	27.6	24.0	17.0	8.0	15.0
11. Parents expect too much of their children.	35.2	30.7	22.0	29.5	20.4	25.0	35.3	48.9	53.0
12. It is easy to express one's ideas.	46.6	40.4	34.0	19.3	16.9	18.0	34.1	42.7	48.0
13. Most people can be trusted.	50.0	50.0	40.0	26.2	28.4	26.0	23.8	21.6	34.0
14. Having a career is not very important.	4.5	3.4	4.0	14.8	4.5	11.0	80.7	93.1	85.0

TABLE 2 (continued)

Attitude Variable	Agree			Undecided			Disagree		
	Fall 74	Fall 75	Fall 76	Fall 74	Fall 75	Fall 76	Fall 74	Fall 75	Fall 76
15. College work is too difficult.	4.5	2.3	1.0	24.0	37.9	17.0	71.5	59.8	82.0
16. There are too many pressures in life.	40.9	33.7	45.0	13.7	18.6	13.0	45.4	47.7	42.0
17. The world is basically a friendly place.	65.5	71.6	57.0	17.2	15.9	27.0	17.3	12.5	16.0
18. Self-paced classes are better than lecture classes.	52.3	39.8	20.7	28.4	36.4	57.7	19.3	23.8	21.1
19. College offers helpful advising to new students.	67.1	68.5	72.0	17.0	18.0	16.0	15.9	13.5	12.0
20. The changes that occur in one's life are usually for the worse.	4.5	00.0	5.0	8.0	3.4	9.0	87.5	96.6	86.0
21. It doesn't take long to get over feeling gloomy.	67.1	81.8	82.0	14.8	3.4	10.0	18.1	14.8	8.0
22. No one cares much what happens to you.	5.8	5.7	22.0	10.0	14.8	5.0	84.2	79.5	73.0
23. One is never free to be himself.	9.3	9.0	12.0	11.0	11.5	16.0	79.7	79.5	72.0
24. A college education will help one reach his career goals.	79.5	89.3	84.0	14.8	10.7	9.0	5.7	00.0	7.0
25. It is embarrassing to participate in class discussions.	6.8	8.4	7.0	10.2	18.1	19.0	83.0	73.5	74.0
26. Recorded lessons teach more than written lessons.	21.6	15.7	8.0	51.1	49.4	57.0	27.3	34.9	35.0
27. I am basically a happy person.	85.2	91.6	96.0	11.4	7.2	3.0	3.4	1.2	1.0
28. It is difficult to know what one believes in.	33.9	37.0	28.0	12.8	21.0	15.0	53.3	42.0	57.0
29. It is not easy to keep people from taking advantage of you or using you.	39.8	34.9	29.0	9.0	15.7	16.0	51.2	49.4	55.0
30. One feels most secure at home.	56.8	53.0	60.0	20.5	22.9	16.0	22.7	20.1	24.0
31. It is easy to ignore criticism.	15.9	22.4	28.0	17.6	11.7	14.0	66.5	65.9	58.0

TABLE 2 (continued)

Attitude Variable	Agree			Undecided			Disagree		
	Fall 74	Fall 75	Fall 76	Fall 74	Fall 75	Fall 76	Fall 74	Fall 75	Fall 76
32. I intend to drop out of college.	9.1	7.2	4.0	11.4	10.8	14.0	79.5	82.0	82.0
33. One's class attendance record shows how he feels about the class.	68.1	67.1	54.4	6.5	7.3	8.6	25.4	25.6	37.0
34. Most people don't understand one another.	51.1	56.6	49.0	15.9	19.3	20.0	33.0	24.1	31.0
35. It is hard to adjust to the changes that occur in one's life.	36.4	28.0	29.0	22.7	19.5	19.0	40.9	52.5	52.0
36. It is difficult to make oneself study.	55.2	65.1	43.0	9.2	10.8	21.0	35.6	24.1	36.0
37. It is easy to make decisions.	34.5	36.6	24.0	18.4	19.5	16.0	47.1	43.9	60.0
38. I have set goals for my future.	62.5	78.3	76.0	25.0	14.5	21.0	12.5	7.2	3.0
39. It is hard not to be self-conscious.	61.3	55.4	74.0	17.0	24.1	5.0	21.7	20.5	21.0
40. School training is of little help in meeting the problems of real life.	17.2	18.1	15.0	16.1	21.7	22.0	66.7	60.2	63.0
41. Life is just a series of disappointments.	3.4	1.2	6.0	11.4	8.4	1.0	85.2	90.4	93.0
42. It is difficult to get along with people.	2.3	6.0	0.0	9.0	4.8	5.0	88.7	89.2	95.0
43. It is easy to lose confidence in oneself.	36.4	33.7	23.0	11.4	13.3	16.0	52.2	53.0	61.0
44. Most people just pretend to like you.	3.4	10.9	8.0	25.1	24.1	22.0	71.5	65.1	70.0

feeling parents expect too much of their children has significantly diminished. Yet more students indicated that in general there are too many pressures in life. This may in part explain the steadily increased percentage who find it difficult to "keep cool in important situations."

It is important to observe that a lesser percentage wonder about the meaning of life (#9) while a larger percentage know what they believe in (#28). They are increasingly self-confident (#43), and view themselves as happy (#27). However, while they have become increasingly self-confident in themselves, they have become less trusting of others (#13,22).

The majority indicate that they have set goals for their future but a lesser percentage has established definite career goals. However, the majority believe college will help them achieve their career goals.

Academic Performance of High-Risk Students

In its initial semester (Fall 1974), 512 students were enrolled in seven different developmental studies courses. This number decreased to 440 in the spring semester of 1975. They earned a combined grade point of 2.123 on a 4.0 system. Fall 1975 saw an enrollment of 775 students in nine different developmental courses and a composite grade point of 2.175. Spring 1976 brought the addition of one more developmental studies course, an enrollment of 532 students and a combined grade point of 2.199. In Fall 1976, 629 students enrolled in one or more developmental studies courses earned a combined grade point of 2.183. One more course was added to the developmental studies curriculum in Spring 1977 while enrollment totaled 466.

In an effort to establish a better picture of the high-risk students, a sample of 79 were traced from enrollment in Fall 1975 to Spring 1977. Only 27 remained enrolled in 1977. During their successive semesters in Amarillo College they carried an average 12.26 hours per semester with a mean grade point of 2.69. The total hours earned averaged 49.4. Thirty-seven percent kept their semester grade point averages consistent since their Fall 1975 enrollment in one or more developmental courses. Another 37% of the grade point averages dropped .25 or more of a grade point. Twenty-two percent increased their grade point averages by .25 or more. No correlations can be made without more specific statistical studies, but a question is certainly evident from these findings.

Enrollment in the bulk of developmental courses was during the student's first or second semester in college. Students took an average total of 8.3 semester hours in developmental courses. It was observed that 23 of the 27 students (85%) took a humanistic psychology course in their first semester and 19 (70.4%) completed a reading course in their first or second semester. A large percentage of those who are no longer enrolled also took a reading course (76.9%), while 57.7% took the humanistic psychology course. These observations bring forth questions regarding the influence of reading and humanistic psychology upon decisions to remain in college.

The performance of students in English classes was studied in an effort to predict success factors. The first semester of Freshman Composition is offered through two methods of instruction at Amarillo College: (1) lecture and (2) personalized system of instruction (PSI).

The PSI instructional format is associated with the developmental studies program. From Fall 1974 through Fall 1975, 168 students completed one or more of the PSI English courses. Seventy-five advanced into the second semester of Freshman Composition. Twenty-six then progressed into the sophomore level English course.

Of the 103 students who earned an A, B, or C in PSI Freshman Composition, 75 went on to attempt second semester English. Fifty-one (68%) earned a C or better in second semester English, thirteen (17.3%) made a D, eight (10.6%) earned an F or an XF, and three (4%) earned an I or imcomplete in the course. Twenty-six of the 64 who made a D or better in second semester English enrolled in one or more of the sophomore level English courses. Seventy-seven percent successfully completed one or more sophomore English courses with a C or better, eight percent earned a D, and fifteen percent earned an F or XF. These statistics indicate that PSI English courses have offered adequate preparation for success in subsequent English courses.

Table 3 depicts a further breakdown of grades earned in English courses. Those students who withdrew or were administratively withdrawn from any of the courses were not included in these statistics.

In spring of 1976, the grade distribution of students enrolled in the personalized freshman composition English course versus those enrolled in the regular freshman composition was studied. While 10% of the 272 students in regular English made an A, only 2.6% of the 152 in personalized English made the same grade. Twenty-two percent earned grades of B in regular English as compared to 9.2% in personalized English. Those earning C totaled 18% in regular English,

TABLE 3

English Grades for High-Risk Students from Fall 1974 through Fall 1975

Course Name	Grades							Total No. Students
	A	B	C	D	F	XF	I	
Basic English								
No.	2	5	2	0	0	0	9	18
Percentage	11	28	11	0	0	0	50	
English Writing Laboratory								
No.	40	34	62	0	1	0	13	150
Percentage	27	23	41	0	1	0	9	
Freshman Composition (1st semester)								
No.	8	39	56	1	4	1	26	135
Percentage	6	29	41	1	3	1	19	
Freshman Composition (2nd semester)								
No.	4	18	29	13	7	1	3	75
Percentage	5	24	39	17	9	2	4	
Sophomore English								
No.	1	7	12	2	3	1	0	26
Percentage	4	27	46	8	11	4	0	

26% in personalized English. Grades of D, F, and withdrawal totaled 50% in regular English, while incomplete grades or withdrawals totaled 61.8% in personalized English. These statistics point up the college-wide attrition problem, particularly as it applies to high-risk students.

Consistently students have reported the eleven developmental studies courses to be interesting, valuable, relaxed, and conducive to learning. They further rate the degree of individual attention received through these courses excellent. They maintain that students like to attend these classes and find instructors patient and helpful. The usefulness of text materials has sharply increased in the developmental math courses and the humanistic psychology course.

Student evaluations of some of the developmental courses are shown in Tables 4 through 7, pages 20-23. Students ranked on a scale from 1 to 5 their agreement or disagreement with 29 statements regarding a developmental course in which they were enrolled. The tables compare ten of the more revealing statements over three semesters.

Conclusions and Implications

The developmental studies program of Amarillo College has been in existence almost three years. During that time, it has served just over 3500 students who qualified as underprepared or high-risk by virtue of their entrance examination scores, previous academic failure, and/or admitted deficiencies in basic academic skills.

Studies of the high-risk students have continued since the program's inception in an effort to understand their characteristics, attitudes,

TABLE 4

Developmental Course Evaluation by Students in Percentages
Course: English 131 PSI - Freshman Composition
Number of Students Participating: Fall, 1974 - 21, Fall, 1975 - 91, Fall, 1976 - 129

Variable	AGREE			UNDECIDED			DISAGREE		
	Fall 74	Fall 75	Fall 76	Fall 74	Fall 75	Fall 76	Fall 74	Fall 75	Fall 76
This class is interesting.	62.0	67.0	67.0	14.0	20.9	19.0	24.0	12.1	14.0
There is too much pressure on students in this class.	5.0	14.9	16.0	5.0	13.5	10.0	90.0	71.6	74.0
The instructor is really interested in helping students do well.	95.0	95.7	89.0	0.0	3.2	7.0	5.0	1.1	4.0
Students receive enough individual attention in class.	71.0	89.1	79.0	14.0	3.3	14.0	15.0	7.6	7.0
The classroom atmosphere is tense.	69.0	9.8	10.0	4.0	8.7	12.0	7.0	81.5	78.0
This course is useful to students.	95.0	91.4	91.0	0.0	5.4	6.0	5.0	3.2	3.0
Students really learn in this class.	81.0	82.7	82.0	14.0	17.3	14.0	5.0	0.0	4.0
Students like to come to this class.	47.6	47.2	----	38.0	36.3	----	14.3	16.5	----
It is difficult to keep oneself working on the coursework.	28.0	44.2	31.0	5.0	2.0	27.0	67.0	35.8	42.0
The text materials are not helpful.	0.0	10.2	6.0	14.3	13.3	8.0	85.7	76.5	86.0

TABLE 5

Developmental Course Evaluation by Students in Percentages
Course: Math 1101 - Arithmetic Operations, Math 1304 - Intermediate Algebra
Number of Students Participating: Fall, 1974 - 13, Fall, 1975 - 132, Fall, 1976 - 108

Variable	AGREE			UNDECIDED			DISAGREE		
	Fall 74	Fall 75	Fall 76	Fall 74	Fall 75	Fall 76	Fall 74	Fall 75	Fall 76
This class is interesting.	38.5	----	----	23.1	----	----	38.5	----	----
There is too much pressure on students in this class.	0.0	----	----	7.7	----	----	92.3	----	----
The instructor is really interested in helping students do well.	77.0	89.7	93.9	15.4	5.2	3.0	7.7	5.2	3.0
Students receive enough individual attention in class.	53.8	----	----	15.4	----	----	30.8	----	----
The classroom atmosphere is tense.	0.0	8.3	11.8	7.7	7.5	9.3	92.3	82.8	78.8
This course is useful to students.	77.0	----	----	7.7	----	----	15.4	----	----
Students really learn in this class.	61.5	85.0	77.4	15.4	9.7	12.3	23.1	5.3	10.4
Students like to come to this class.	53.8	----	----	23.1	----	----	23.1	----	----
It is difficult to keep oneself working on the coursework.	46.2	----	----	38.5	----	----	15.4	----	----
The text materials are not helpful.	30.8	12.4	12.7	7.7	10.9	9.3	61.5	76.7	7.71

TABLE 6

Developmental Course Evaluation by Students in Percentages
Course: Psychology 131 - Personal Development
Number of Students Participating: Fall, 1974 - 31, Fall, 1975 - 58, Fall, 1976 - 59

Variable	AGREE			UNDECIDED			DISAGREE		
	Fall 74	Fall 75	Fall 76	Fall 74	Fall 75	Fall 76	Fall 74	Fall 75	Fall 76
This class is interesting.	91.0	97.7	100.0	3.0	1.7	0.0	6.0	0.0	0.0
There is too much pressure on students in this class.	0.0	32.7	3.0	0.0	6.9	2.0	100.0	60.4	95.0
The instructor is really interested in helping students do well.	96.8	100.0	100.0	3.2	0.0	0.0	0.0	0.0	0.0
Students receive enough individual attention in class.	89.0	91.4	100.0	11.0	8.6	0.0	0.0	0.0	0.0
The classroom atmosphere is tense.	0.0	8.6	8.5	7.0	10.4	3.5	3.0	81.0	88.0
This course is useful to students.	90.0	91.4	96.5	7.0	6.9	1.6	3.0	1.7	1.6
Students really learn in this class.	90.0	84.5	96.5	7.0	15.5	3.3	3.0	0.0	0.0
Students like to come to this class.	80.0	87.9	95.0	20.0	12.1	5.0	0.0	0.0	0.0
It is difficult to keep oneself working on the coursework.	16.7	12.1	10.0	16.7	17.2	7.0	66.7	70.7	83.0
The text materials are not helpful.	17.0	5.4	0.0	14.0	30.4	14.0	69.0	64.3	86.0

TABLE 7

Developmental Course Evaluation by Students in Percentages
Course: Reading 133 - College Reading Techniques
Number of Students Participating: Fall, 1974 - 41, Fall, 1975 - 114, Fall, 1976 - 41

Variable	AGREE			UNDECIDED			DISAGREE		
	Fall 74	Fall 75	Fall 76	Fall 74	Fall 75	Fall 76	Fall 74	Fall 75	Fall 76
This class is interesting.	90.2	79.0	73.0	4.8	10.5	15.0	4.8	10.5	12.0
There is too much pressure on students in this class.	9.8	0.0	0.0	12.2	9.4	5.0	78.0	90.6	95.0
The instructor is really interested in helping students do well.	97.6	95.3	98.0	2.4	1.9	2.0	0.0	2.8	0.0
Students receive enough individual attention in class.	90.2	88.7	90.0	4.8	6.6	5.0	4.8	4.7	5.0
The classroom atmosphere is tense.	8.5	2.8	5.0	12.2	5.7	7.0	72.3	91.5	88.0
This course is useful to students.	97.6	87.9	85.0	0.0	8.4	15.0	2.4	3.7	0.0
Students really learn in this class.	95.1	87.4	78.0	0.0	11.6	20.0	4.8	1.0	2.0
Students like to come to this class.	75.6	81.1	56.0	17.1	13.6	32.0	7.3	5.7	12.0
It is difficult to keep oneself working on the coursework.	12.2	15.9	25.0	12.2	12.1	24.0	75.6	72.0	51.0
The text materials are not helpful.	7.3	8.4	4.0	7.3	4.7	10.0	85.4	86.9	86.0

motivations, and goals. The emerging picture is that of a twenty-four year old Anglo-American, single and non-military. The high-risk student works well over 20 hours per week and supports himself to a large extent on a lower middle to lower socioeconomic status.

The high-risk student has earned a high school diploma, is reading on the tenth grade level and has borderline entrance examination scores. He wants to earn at least a Bachelor's degree but is undecided to doubtful of his ability to do so. He intends to continue his immediate education at a community college. He sees his future in a semi-professional to professional career.

The attitudes of the high-risk student have become more positive toward college, life and self since Fall 1974. Attitudes toward others have become more doubtful.

The academic performance of the high-risk student is commendable. His mean grade point is 2.17 on a 4.0 system for an average 10.5 hours per semester. He enrolls in an average of 8.3 developmental course hours which most often include personalized Freshman English, intermediate algebra, reading techniques, and/or personal development psychology. He evaluates the developmental courses as interesting, valuable, relaxed and conducive to learning. If he persists in college, he is able to be successful in his chosen degree program.

From the data gathered about high-risk students at one community college in Northwest Texas, several facts that must be taken into consideration when advising a high-risk student can be implied. He works more than half-time, honestly admits his weak academic areas, lacks confidence in his abilities, and conversely has lofty educational

and career aspirations. More questions are suggested than are answered by this data. Yet it offers a vital perspective on the high-risk student population that can guide the steps of future research.

Future Research

Research is needed on high-risk students and special programs such as developmental studies to prove or disprove their effectiveness as remediation tools in higher education. Previous literature as well as this research recognizes the need to gather and analyze data which can shed clearer light on the success factors surrounding high-risk students after exposure to remedial instruction. The ultimate applied outcome of such research would be more effective remedial curricular designs based on better knowledge of high-risk students. Therein lies the importance of this study and subsequent ongoing research. The design of a comprehensive follow-up of high-risk students is now eminant in the face of institutional attritian statistics.

Future quasi-experimental and experimental research is now called for to answer the question: How has one or more developmental studies courses affected the success of high-risk students? Success is defined in terms of course hours completed, grade point averages, continued enrollment, decisions regarding educational and career goals, ultimate attainment of those goals, and student assessments of personal success.

REFERENCES

Astin, A. W. Preventing Students from Dropping Out. San Francisco: Jossey-Bass, 1975.

Astin, A. W., & Panos, R. J. The educational and vocational development of college dropouts. Washington, D. C.: American Council on Education, 1969.

Cohen, A. M., and Associates. A Constant Variable. San Francisco: Jossey-Bass, 1971.

Cooley, W. W., & Becker, S. J. The junior college student. Personnel and Guidance Journal, 1966, 1, 464-469.

Cross, K. P. The junior college student: A research description. Princeton, N. J.: Educational Testing Service, 1968.

Cross, K. P. Higher education's newest student. In Proceedings of Western Regional Conference on Testing Problems. Princeton, N. J.: Educational Testing Service, 1969.

Knoell, D. M. People Who Need College: A Report on Students We Have Yet to Serve. Washington, D. C.: American Association of Junior Colleges, 1970. 304 pp. (ED 041 573)

Medsker, L. L., & Tillery, D. Breaking the access barriers: A profile of two-year colleges. New York: McGraw Hill, 1971.

Moore, W., Jr. Community College Response to the High-Risk Student: A Critical Appraisal. Washington, D. C.: American Association of Junior Colleges, 1976. 53pp.

O'Banian, T. Rules and regulations: Philosophy and practice. Junior College Journal, 1969, 4, 11-15.

Puig-Casavranc, Maria del Carmen. Remedial programs: Are they the panacea or the problem? A Report of the National Dissemination Project for Post-Secondary Education. Prepared by the Research and Planning Office, Washington State Board for Community College Education, Seattle, Washington, 1974.

Rehberg, R. A.,& Westby, D. L. Parental encouragement, occupation, education, and family size: Artificial or independent determinant of educational expectations? Social Forces, 1967, 3, 362-374.

Roueche, J. E. A Modest Proposal. San Francisco: Jossey-Bass, 1972.

Roueche, J. R. Salvage Redirection, or Custody? ERIC Clearinghouse for Junior Colleges, Monograph 1. Washington, D. C.: American Association of Junior Colleges, 1968. 77pp. (ED 019 077).

Roueche, J. E., and Kirk, R. W. Catching Up: Remedial Education. San Francisco: Jossey-Bass, 1973.

SCOPE, School to College: Opportunities for post-secondary education. Unpublished data from Center for Research and Development in Higher Education, University of California, Berkeley, 1968.

Shea, B., & Rehberg, R. A. Identification of selection variables associated with years of schooling achieved. Paper presented at the annual meeting of the New York State Sociological Association, New York, 1973.

UNIVERSITY OF CALIF.
LOS ANGELES

AUG 4 1978

CLEARINGHOUSE FOR
JUNIOR COLLEGES